

SECTION VI.—WEATHER AND DATA FOR THE MONTH.

THE WEATHER OF THE MONTH.

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Pressure.—The distribution of the mean atmospheric pressure over the United States and Canada, and the prevailing direction of the wind, are graphically shown on Chart VII, while the mean values for the month at the several stations, with the departures from the normal, are shown in Tables I and III.

The mean pressure for the month as a whole was above the normal over most of the country; in fact the only sections showing negative departures comprise the Pacific Coast States and Idaho, the west Gulf States, and local areas in the middle Mississippi and Ohio valleys. However, the positive departures as a rule were small, the greatest values appearing in the northern Rocky Mountain and adjoining Plains States, the Upper Lake region, and the Northeast. The negative departures were likewise small, except that they were quite pronounced in the middle and northern Pacific Coast States.

During the first week of the month no important pressure changes occurred east of the Rocky Mountains, high pressure prevailing in northern districts with relatively low readings to the southward. During this time to the westward of the Rocky Mountains barometric conditions were unsettled, with tendencies to low readings, which advanced eastward and culminated about the close of the first decade in a well-defined storm over the southern Plains States, and moved thence rapidly northeastward and disappeared off the Canadian Maritime Provinces about the 12th. During the following few days pressure readings were high to the westward of the Mississippi, but to the eastward they were relatively low, with unsettled, showery weather.

About the beginning of the third decade low pressure developed in the far Southwest and extended eastward to the Gulf States by the middle of the decade, disappearing off the east Florida coast about the 26th. In the meantime a pronounced high-pressure area moved from the far Northwest, crossing the great central valleys about the 27th and reaching the Southeastern States the following day, but with decreased intensity. During the last few days of the month high pressure obtained quite generally, except for a moderate depression that moved from the region of the Great Lakes to the North Atlantic Ocean.

The distribution of the highs and lows during the month was such as to favor the frequent occurrence of southerly winds in the great central valleys, the Plains States, and from the Lake region eastward, and northeasterly winds over the Southeastern States. From the Rocky Mountains westward the usual variable winds prevailed.

Temperature.—The month opened with warm weather for the season of the year, prevailing over western districts, but in the eastern portion of the country temperatures were somewhat below normal. During the first few days there was a tendency to higher temperatures in the central valleys and the cool weather over eastern districts gave way slowly, so that by the 10th temperatures were generally above normal from the Mississippi Valley eastward.

At the same time cooler weather had advanced from the Pacific coast region and by the morning of the 5th it had extended eastward to the Plains States, and the first widespread severe frosts of the season were reported from the Plateau and Rocky Mountain regions. This cool area rapidly dissipated over the Great Plains, and during the next few days the weather was unseasonably warm in the central valleys and to the eastward, except locally in the Northeastern States, but in the far West cool weather continued.

Early in the second decade of the month cool weather overspread northern districts and it continued cool to the westward of the Rockies, but by the middle of the month temperatures were again near or above the seasonal normal generally and so continued to the end of the decade.

During the last decade warm weather continued over most districts until about the 25th, when high pressure and much colder weather moved southward from the Canadian Northwest Provinces and during the following few days overspread the central valleys and eastern districts. During the progress of this cold area the first general killing frosts of the season occurred over the interior valleys and eastern districts, the line of freezing temperature extending into the central portion of the middle Gulf States and thence northeastward to the New Jersey coast. During the remaining days of the month there was a gradual return to warmer weather and at the close temperatures were again quite high for the season in the central valleys and the Northwest.

For the month as a whole the mean temperature was above the normal in practically all portions of the country, and especially so over the northern districts where the excess ranged very generally from 5° to 10°.

Maximum temperatures were only moderately high, except in a few instances where they were near or equaled the previous record for October.

Minimum temperatures were quite low over eastern and southern districts on the morning of the 28th, especially along the north Atlantic coast where some of the lowest October readings in a period of more than 40 years were recorded.

Precipitation.—During the first week of the month a moderate disturbance persisted in the Gulf of Mexico and the adjoining States, with apparently little change in either location or intensity, during which time showery weather prevailed in the east Gulf and South Atlantic States, with some heavy local falls about the 2d and 3d, but to the northward generally clear weather prevailed during this period.

About the beginning of the month rain set in over the far West and spread slowly eastward. The disturbance responsible for this precipitation was of irregular formation and movement during the first several days of its eastward progress, developing into a well-defined storm only after reaching the southern Plains region near the close of the first decade, but in the meantime showery weather was quite general in western districts. After the 10th the western disturbance moved rapidly from the Mississippi Valley northeastward to the Canadian Maritime Provinces, accompanied by rain over most eastern districts.

From about the 13th to the 18th fair weather was the rule to westward of the Mississippi, but to the eastward unsettled, showery weather prevailed quite generally, breaking for the time being the drought that had persisted in New York and other northeastern States, which had developed into one of the severest on record in portions of that section.

For a few days about the close of the second decade fair weather prevailed generally throughout the country, but early in the third decade general rains set in over the Southwest and during the following few days showers became general from the Rocky Mountains eastward to the Mississippi Valley and extended into the Lake region, with some heavy falls in Texas and New Mexico. From the 26th to the end of the month no precipitation of consequence occurred, except for local showers from the region of the Great Lakes eastward.

For the month as a whole the rainfall was generous to moderately heavy, amounting to from 4 to 6 inches or more in the southeastern States, the southern drainage area of the Ohio, the middle Mississippi and lower Missouri Valleys, and in portions of Texas, while falls of more than 10 inches occurred in the extreme western portions of Washington and Oregon. The precipitation was less than the monthly normals in most of the Atlantic Coast States, especially from Virginia northward, as was also the case in the west Gulf and southern Plains States and portions of the far Southwest. In most other sections of the country the monthly totals were near the normal.

Except in the higher mountain regions of the West and in upper Michigan, no appreciable snow occurred during the month.

GENERAL SUMMARY.

The month, as a whole, was unusually pleasant and favorable for all occupations usual to the season.

In the principal agricultural districts the weather was favorable for the seeding of wheat and the gathering of corn, cotton, and other crops, and there was sufficient soil moisture for the germination of fall-sown grain, except in a few localities.

The absence of general frosts until near the end of the month favored vegetable growth of all kinds. Pastures as a rule continued in excellent condition throughout the month, and stock of all kinds was reported in prime condition to enter the winter. All late crops yielded well and matured properly, and garden vegetables continued

in abundance until the killing frosts near the end of the month.

The severe drought that prevailed in portions of the Atlantic Coast States was very generally broken about the middle of the month, although in New Jersey and portions of adjoining States dry weather still continued at the end.

Average accumulated departures for October, 1914.

Districts.	Temperature.			Precipitation.			Cloudiness.		Relative humidity.	
	General mean for the current month.	Departure for the current month.	Accumulated departure since Jan. 1.	General mean for the current month.	Departure for the current month.	Accumulated departure since Jan. 1.	General mean for the current month.	Departure from the normal.	General mean for the current month.	Departure from the normal.
	°F.	°F.	°F.	In.	In.	In.			P. ct.	P. ct.
New England.....	53.1	+2.7	-6.3	2.46	-1.20	-5.10	5.5	+0.1	76	-3
Middle Atlantic.....	58.8	+3.4	+0.9	1.91	-1.20	-7.00	5.4	+0.6	77	+1
South Atlantic.....	65.4	+1.7	+4.3	3.84	-0.1	-12.10	5.5	+1.5	81	+3
Florida Peninsula.....	74.7	-1.2	-4.8	7.80	+2.80	-11.00	5.7	+1.0	79	-1
East Gulf.....	65.8	+0.3	-2.6	2.54	-0.20	-4.30	5.1	+1.2	80	+7
West Gulf.....	67.8	+1.2	+6.9	2.38	-0.40	-5.40	5.1	+1.4	76	+4
Ohio Valley and Tennessee.....	59.7	+2.9	+5.0	3.03	+0.50	-6.20	5.9	+1.5	78	+7
Lower Lakes.....	55.2	+3.4	-4.4	2.11	+0.70	-1.60	5.7	-0.2	79	+5
Upper Lakes.....	53.7	+6.1	+9.9	2.14	-0.70	-0.50	5.5	-0.5	83	+5
North Dakota.....	50.8	+8.2	+22.4	0.83	-0.20	+2.70	4.6	-0.6	74	+2
Upper Mississippi Valley.....	57.5	+4.7	+19.6	2.96	-0.50	-2.80	5.0	+0.4	81	+10
Missouri Valley.....	57.6	+4.9	+25.6	3.04	+1.20	+0.60	4.8	+0.7	74	+7
Northern slope.....	47.3	+2.6	+18.9	1.67	+0.40	-1.30	5.4	+1.0	70	+10
Middle slope.....	57.4	+1.8	+22.1	1.75	+0.30	-3.30	4.3	+0.9	66	+7
Southern slope.....	62.6	+0.2	+7.8	4.64	+2.70	+5.20	4.8	+0.2	66	+3
Southern Plateau.....	60.1	+0.3	+3.7	1.36	+0.70	-0.50	2.8	+0.6	54	+12
Middle Plateau.....	51.9	+1.4	+10.8	1.59	+0.70	+0.40	3.8	+0.5	56	+7
Northern Plateau.....	52.0	+2.6	+19.0	1.59	+0.50	-0.60	5.7	+1.1	68	+5
North Pacific.....	54.5	+3.4	+15.6	6.55	+2.60	+3.00	7.3	+1.0	84	+4
Middle Pacific.....	59.3	+0.6	+5.5	1.52	0.00	-0.70	4.1	+0.3	70	-0
South Pacific.....	65.8	+3.5	+16.3	0.42	-0.40	+3.20	3.2	+0.1	64	-6

Maximum wind velocities, October, 1914.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Block Island, R. I.....	30	53	nw.	North Head, Wash..	1	60	s.
Buffalo, N. Y.....	10	64	sw.		12	58	se.
Buffalo, N. Y.....	11	57	sw.		15	58	se.
Cleveland, Ohio.....	28	63	sw.		16	78	se.
Corpus Christi, Tex.....	26	51	n.		18	76	s.
Modena, Utah.....	12	50	se.	Pittsburgh, Pa.....	30	50	s.
Mt. Tamalpais, Cal.....	2	50	s.		31	56	se.
Mt. Weather, Va.....	17	72	nw.		10	54	w.
New York, N. Y.....	28	53	sw.		3	52	w.
	26	52	nw.	Sand Key, Fla.....	17	50	s.
	23	52	nw.		16	50	s.
	27	52	nw.	Tatoosh Island, Wash..	18	56	sw.